

# Dr. Franck Rose

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## PUBLICATIONS

### IN PREPARATION

23. M. Tatarkhanov, F. Rose, E. Fomin, D. F. Ogletree and M. Salmeron  
Hydrogen Adsorption on Ru(001) Studied by Scanning Tunneling Microscopy  
*In Preparation for Surface Science* (2007)

### SUBMITTED

22. F. Rose, M. Tatarkhanov, E. Fomin, D. F. Ogletree and M. Salmeron  
The Nature of the Dissociation Sites of Hydrogen Molecules on Ru(001)  
*Submitted to Journal of the American Chemical Society* (2007)

### PUBLISHED

21. S.Kawai, F.Rose, T.Ishii, S.Tsukamoto, and H. Kawakatsu  
Dynamic Force Microcopy Study of the As-rich c(4×4) and Ga-rich c(8×2)  
Reconstructions of the GaAs(001) Surface  
*Accepted in Journal of Applied Physics* (2007)
20. F.O.Morin, F.Rose, P.Martin, M.C.Tarhan, H.Kawakatsu and H, Fujita  
Combing and Self-assembly Phenomena in Dry Films of Taxol-Stabilized  
Microtubules  
*Nanoscale Research Letters*, 2, 135 (2007)
19. Y.A.Chapuis ,A.Debray, and F.Rose  
Self-Assembly and Surface Science Techniques Used in MEMS/NEMS Fabrication  
“*MEMS and its Material Technologies*”, edited by M. Ichiki, *Research Signpost*,  
Trivandrum, Kerala, India (2007)
18. F.Rose, A.Debray, P.Martin, H.Fujita, and H.Kawakatsu  
Suspended HOPG Nanosheets for HOPG Nanoresonators Engineering and New  
Carbon Nanostructures Synthesis  
*Nanotechnology* 17, 5192 (2006)
17. F.Rose, S.Kawai, T. Ishii, and H.Kawakatsu  
Scanning Tunneling Spectroscopy and Topography of Si(111)-c(2×8) and  
Coexisting 7×7 and 2×1 Reconstructions: Surface Electronic Band Structure  
*Physical Review B* 73, 045309 (2006)
16. F.Rose, S.Kawai, and H.Kawakatsu  
Low Reactivity of Molecular Oxygen with Si(111)-c(2×8)  
*Surface Science* 600, 106 (2006)
15. S.Kawai, F.Rose, and H.Kawakatsu  
Atomically Resolved Observation of the Quenched Si(111) Surface with Small  
Amplitude Dynamic Force Microscopy  
*Journal of Applied Physics* 99, 104312(2006)

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PUBLICATIONS  
(CONTINUED)

14. F.Rose, P.Martin, H.Fujita, and H.Kawakatsu  
Adsorption and Combing of DNA on HOPG Surfaces of Bulk Crystals and Nanosheets: Application to the Bridging of DNA between HOPG/Si Heterostructures  
*Nanotechnology* 17, 3325 (2006)
13. F.Rose, M.Hattori, D.Kobayashi, H.Toshiyoshi, H.Fujita, and H.Kawakatsu  
Application of Capillarity Forces and Stiction for Lateral Displacement, Alignment, Suspension, and Locking of Self-Assembled Microcantilevers  
*Journal of Micromechanics and Microengineering* 16, 2077 (2006)
12. P.Martin, F.Rose, F.Morin, H.Fujita and H.Kawakatsu  
FIB-created HOPG/SiO<sub>2</sub> Heterostructures for Adsorbed and Suspended DNA  
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11. H.Kawakatsu, S.Kawai, D.Kobayashi, M.Hattori, S.Nishida, F.Rose, S.Kitamura, and S.Meguro  
Atomic Force Microscopy Utilizing Sub-Angstrom Cantilever Amplitudes  
*Seisan-Kenkyu*, 58(2), 93 (2006)-Cover Story
10. F.Rose, T.Ishii, S.Kawai, and H.Kawakatsu  
Non-Contact Atomic Force Microscopy and Scanning Tunneling Microscopy of Coexisting Reconstructions on Si(111)  
*e-Journal of Surface Science and Nanotechnology* 3, 258 (2005)
9. A.J.Mayne, F.Rose, G.Comtet, L.Hellner and G.Dujardin  
Variable Temperature STM Studies of the Adsorption of Oxygen on the Si(111)-7×7 surface  
*Surface Science* 528, 132 (2003)
8. A.J.Mayne, F.Rose, and G.Dujardin  
An STM Study of the Growth Behavior of the Oxidation of the Ge(111) Surface  
*Surface Science* 523, 157 (2003)
7. G.Dujardin, A.J.Mayne, and F.Rose  
Temperature Control of Electronic Channels Through a Single Atom  
*Physical Review Letters* 89 (3) 036802 (2002)
6. A.J.Mayne, F.Rose, C.Bolis, and G.Dujardin  
An Scanning Tunneling Microscopy Study of the Diffusion of a Single or a Pair of Atomic Vacancies,  
*Surface Science* 486 (3), 226 (2001)

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5. G.Dujardin, F.Rose, J.Tribollet and A.J.Mayne  
Inelastic Transport of Tunnel and Field Emitted Electrons Through a Single Atom  
*Physical Review B* 63, 081305 (R) (2001)
4. G.Dujardin, F.Rose, and A.J.Mayne  
Toggling the Local Surface Work Function by Pinning Individual Promoter Atoms  
*Physical Review B* 63, 235414 (2001)
3. A.J.Mayne, F.Rose, and G.Dujardin  
Inelastic Interactions of Tunnel Electrons with Surfaces  
*Faraday Discussions* 117, 241 (2000)
2. G.Dujardin, A.J.Mayne, and F.Rose,  
Surface Molecular Chain Reaction Initiated at STM-Made Individual Active Sites  
*Physical Review Letters* 82 (17), 3448 (1999)
1. G.Dujardin, A.J.Mayne, O.Robert, F.Rose, C.Joachim, and H.Tang  
Vertical Manipulation of Individual Atoms by a Direct STM Tip-Surface Contact  
on the Ge(111) Surface  
*Physical Review Letters* 80 (14), 3085 (1998).

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Handling the Atom  
*Seeds of Science: Advances of Science*, 92 (1999)
- G.Dujardin, A.J.Mayne, and F.Rose  
Manipuler l'Atome  
*Plein Sud Spécial Recherche* 1999, 74 (1999)

Collaborations to:

*Pour la Science, Science et Vie Junior, Sciences et Avenir Hors-série* (1999-2001)